

In the Claims

1-103. (canceled)

104. (withdrawn) An introducer sheath device for use during a surgical procedure for introducing surgical components into a vessel into a patient, said introducer sheath device comprising:

a housing having a passageway that accommodates the passage of the surgical components therein;

sealing means for preventing the loss of blood from the vessel during the insertion and subsequent removal of surgical components during the surgical procedure, wherein said sealing means comprises a sealing cavity, wherein said sealing cavity is filled with a biocompatible sealing material, wherein said sealing material does not contain a pre-formed lumen, wherein said sealing material is a self-sealing gel-like material, wherein said sealing material forms a seal around the surgical components as the components are inserted through said sealing material and removed from said introducer sheath device during the surgical procedure.

105. (withdrawn) The introducer sheath device according to Claim 104, further comprising:

positioning means for maintaining the position of said introducer sheath device in the vessel.

106. (withdrawn) The introducer sheath device according to Claim 105, wherein said positioning means comprises an inflatable cuff positioned at one end of said introducer sheath device.

107. (withdrawn) The introducer sheath device according to Claim 106, wherein said inflatable cuff is filled with a fluid.

108. (withdrawn) The introducer sheath device according to Claim 106, wherein said positioning means further includes at least one filling passageway for filling said inflatable cuff.

109. (withdrawn) The introducer sheath device according to Claim 108, wherein said at least one filling passageway extends along said passageway that accommodates the passage of the surgical components.

110-114. (canceled)

115. (previously presented): A method of repairing an aneurysm in a vessel using at least two sheath devices, said method comprising the steps of:

introducing at least a portion of the sheath devices into the vessel;

inserting a repair apparatus through a sealing cavity containing a self-sealing gel-like material disposed in at least one of the sheath devices;

repairing the aneurysm in the vessel; and

removing the repair apparatus from the sheath devices and the sealing cavity.

116 - 119. (canceled)

120. (previously presented) The method of Claim 115, further comprising the step of maintaining the sheath devices in proper orientation within the vessel.

121. (previously presented) The method of Claim 120, wherein the step of maintaining the sheath devices in proper orientation further comprises the step of inflating a cuff of at least one of the sheath devices.

122. (previously presented) The method of Claim 121, wherein the step of inflating the cuff further comprises the step of supplying fluid from an external source to the cuff.

123. (previously presented) The method of Claim 115, wherein the step of introducing the sheath devices further comprises the steps of:

- introducing at least one guide wire into the vessel; and
- directing the sheath devices over the guide wire.

124. (previously presented) A method of reducing the loss of blood from a vessel using a first sheath device in communication with a second sheath device, at least one of the first and second sheath devices comprising a sealing cavity, said method comprising the steps of:

- introducing the first sheath device into the vessel;
- introducing the second sheath device into the vessel;

inserting at least one repair apparatus through the sheath devices and the sealing cavity;

performing a surgical procedure;

removing the repair apparatus from the sheath devices and the sealing cavity.

125. (previously presented) The method of Claim 129, wherein the step of orienting the first and second sheath devices further comprises the step of inflating a cuff of at least one of the sheath devices.

126. (previously presented) A method of reducing the loss of blood during the surgical repair of an aneurysm using a first sheath in communication with a second sheath device, the first and second sheath devices each comprising a housing with a first end portion, a second end portion, a hollow interior spanning from the first end to the second end portion, and a sealing cavity proximate to the second end portion of at least one of the sheath devices, said method comprising the steps of:

introducing the first end portion of the first sheath device proximate to the aneurysm through an artery;

introducing the first end of the second sheath device distal to the aneurysm through the artery;

inserting at least one repair apparatus through the second sheath device, the first sheath device, and the sealing cavity;

repairing the aneurysm; and

removing the repair apparatus from the second and first sheath devices and the sealing cavity.

127. (previously presented) The method of Claim 115, further comprising the step of repeating insertion and removal of the repair apparatus.

128. (previously presented) The method of Claim 115, wherein the step of introducing the sheath devices into the vessel further comprises the step of orienting the sheath devices such that a portion of at least one of the sheath devices is positioned outside the vessel.

129. (previously presented) The method of Claim 124, further comprising the step of orienting the first and second sheath devices within the vessel prior to inserting at least one repair apparatus.

130. (previously presented) The method of Claim 126, further comprising the step of orienting the first and second devices within the artery prior to inserting at least one repair apparatus.

131. (previously presented) The method of Claim 130, wherein the step of orienting the first and second devices further comprises the step of inflating a cuff of at least one of the sheath devices.

132. (previously presented) An introducer sheath system for use during a surgical procedure comprising:

at least two introducer sheath devices, the introducer sheath devices each comprise a housing having a passageway accommodating at least one surgical component therein; a sealing cavity in communication with the housing of at least one sheath device, the sealing cavity containing a biocompatible self-sealing material forming a seal around the surgical components as the components are inserted and removed through the sealing cavity.

133. (previously presented) The introducer sheath system of Claim 132, further comprising a positioning assembly in communication with the housing of at least one sheath device.

134. (previously presented) The introducer sheath system of Claim 133, wherein the positioning assembly of the sheath device is an inflatable cuff.

135. (previously presented) The introducer sheath system of Claim 132, wherein a first introducer sheath device is located at a proximal end of a vessel and a second introducer sheath is located at a distal end of the vessel.